

Appln. No. 10/802,194

Attorney Docket No. 10541-1989

**I. Drawings**

Figures 3, 4 and 5 have been amended to conform to the specification and to be consistent with the other figures showing like reference numbers. Specifically, a wall separating the coolant collector region that is in communication with the coolant outlet from the coolant collector region that is in communication with the coolant inlet was added to Figures 3, 4 and 5.

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## II. Remarks

Claims 1-8 are pending in the application. Claims 7 and 8 have been withdrawn. Claim 2, 3 and 6 have been cancelled. Claim 1 has been amended. No new claims have been added.

### Drawings

Figures 3, 4 and 5 have been amended to conform to the specification and to be consistent with the other figures showing like reference numbers.

### Rejections Under 35 USC § 112

Claims 1-6 were rejected under 35 USC §112, first paragraph, as failing to comply with the enablement requirement. Applicant asserts that the correction to the drawings and the amendments to claim 1 has overcome this rejection.

Claim 1-6 were rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicant asserts that the correction to the drawings and the amendments to claim 1 has overcome this rejection.

### Rejections Under 35 USC § 102

Claim 1 was rejected under 35 USC §102(b) as being anticipated by or, in the alternative, under USC §103(a) as obvious over U.S. Patent No. 5,884,696 issued to Loup (Loup).

Loup discloses an engine cooling radiator and an evaporator of the air conditioning system for a vehicle that is combined in a single triple heat exchanger. The refrigerant fluid and the engine coolant fluid flow respectively in two sets of flat

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pockets which are stacked alternately with gaps in which the air to be treated flows. A pocket of one set is directly juxtaposed to a pocket of the other set, to form a pair of pockets, between each gap and the next, to give direct heat transfer between the refrigerant and engine coolant fluids.

However, Loup does not disclose the refrigerant collector region partly surrounded by the coolant collector region, and the plurality of coolant tubes arranged in a first row and the plurality of refrigerant tubes arranged in a second row, and where the plurality of refrigerant tubes are arranged after the plurality of coolant tubes in a direction of the passing air to be heated. Loup's two sets of flat pockets are stacked alternately with gaps in which the air to be treated flows and a pocket of one set is directly juxtaposed to a pocket of the other set, to form a pair of pockets. Therefore, Loup does not teach or suggest the present invention as claimed in amended claim 1. Accordingly, Applicants respectfully requests allowance of amended claim 1.

Claims 1 and 3-5 were rejected under 35 USC §102(b) as being anticipated by or, in the alternative, under USC §103(a) as obvious over Canadian Patent No. 610,005 issued to Herz (Herz) or Japanese Patent No. 61-04992 issued to Miura (Miura). Neither Herz nor Miura teach or suggest a heat exchanger assembly having a refrigerant collector region partly surrounded by the coolant collector region, and the plurality of coolant tubes arranged in a first row and the plurality of refrigerant tubes arranged in a second row, and where the plurality of refrigerant tubes are arranged after the plurality of coolant tubes in a direction of the passing air to be heated.

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Claims 1 and 6 were rejected under 35 USC §102(b) as being anticipated by or, in the alternative, under USC §103(a) as obvious over Japanese Patent No. 5-272882 issued to Hoshina (Hoshina).

Hoshina does not teach or suggest a heat exchanger assembly having a refrigerant collector region partly surrounded by the coolant collector region, and the plurality of coolant tubes arranged in a first row and the plurality of refrigerant tubes arranged in a second row, and where the plurality of refrigerant tubes are arranged after the plurality of coolant tubes in a direction of the passing air to be heated.

Rejections Under 35 USC § 103

Claim 1 was rejected under 35 USC §103(a) as being unpatentable over Loup as applied to claim 1 above, and further in view of U.S. Patent Publication No. 2001/0001982 by Khelifa, et al. (Khelifa) or U.S. Patent No. 6,810,952 issued to Ben Fredj et al. (Ben Fredj).

Neither Khelifa nor Ben Fredj teach or suggest a heat exchanger assembly having a refrigerant collector region partly surrounded by the coolant collector region, and the plurality of coolant tubes arranged in a first row and the plurality of refrigerant tubes arranged in a second row, and where the plurality of refrigerant tubes are arranged after the plurality of coolant tubes in a direction of the passing air to be heated.

Claims 1 and 3-5 were rejected under 35 USC §103(a) as being unpatentable over Herz or Muira as applied to claim 1 above, and further in view of Khelifa or Ben Fredj.

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Neither Herz, Mulra, Khelifa nor Ben Fredj teach or suggest a heat exchanger assembly having a refrigerant collector region partly surrounded by the coolant collector region, and the plurality of coolant tubes arranged in a first row and the plurality of refrigerant tubes arranged in a second row, and where the plurality of refrigerant tubes are arranged after the plurality of coolant tubes in a direction of the passing air to be heated.

Claims 1 and 6 were rejected under 35 USC §103(a) as being unpatentable over Hoshina as applied to claims 1 and 6 above, and further in view of Khelifa or Ben Fredj.

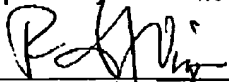
Neither Hoshina, Khelifa nor Ben Fredj teach or suggest a heat exchanger assembly having a refrigerant collector region partly surrounded by the coolant collector region, and the plurality of coolant tubes arranged in a first row and the plurality of refrigerant tubes arranged in a second row, and where the plurality of refrigerant tubes are arranged after the plurality of coolant tubes in a direction of the passing air to be heated.

#### SUMMARY

Pending Claims 1-6 as amended are patentable. Applicants respectfully request the Examiner grant early allowance of these claims. The Examiner is invited to contact the undersigned attorneys for the Applicants via telephone if such communication would expedite this application.

November 16, 2005  
Date

Respectfully submitted,

  
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